IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Brian Scott Hallisey, et al.	Examiner: Nicholas Augustine
Serial No.:	10/647,210	Group Art Unit: 2179
Filed:	August 26, 2003	Docket No.: 200206455-1
Title:	Methods of Displaying Resources of Overlapping But Separate Hierarchies	

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is filed in response to the Final Office Action mailed September 10, 2007 and Notice of Appeal filed on December 10, 2007.

AUTHORIZATION TO DEBIT ACCOUNT

It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's deposit account no. 08-2025.

I. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS AND INTERFERENCES

There are no known related appeals, judicial proceedings, or interferences known to appellant, the appellant's legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Appeal Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1 – 25 are pending in the application and stand finally rejected. The rejection of claims 1 – 25 is appealed.

IV. STATUS OF AMENDMENTS

No claim amendments were made after receipt of the Final Office Action. All claim amendments have been entered.

On December 10, 2007, Applicants filed an After-Final response to add the words "Prior Art" to figure 1A. No amendments were made to the claims. This amendment to the drawings was entered as indicated in the Advisory Action mailed January 2, 2008.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element or that these are the sole sources in the specification supporting the claim features.

Claim 1

A method of using a Graphical User Interface (GUI) to display relationships amongst resources of a system, the method comprising:

illustrating at least two overlapping but separate hierarchies in the same mosaic-like graphic, each hierarchy representing one or more of the relationships amongst the resources (Figure 3A shows a mosaic-like pane 300 showing a first hierarchy of storage resources 301 and a second hierarchy of storage resources 303. LUNs 304 and 306 report to (i.e., are hierarchical children of) a first parent array 302. At the same time, LUNs 304, 306, and 308 report to (i.e., are hierarchical children of) a different parent VG 310. Thus, LUNs 304 and 306 overlap between two different hierarchies. See paragraphs [0023] – [0026]. Figure 3B further shows how LUN 308 belongs or reports to two different hierarchical parents: VG 310 and JBOD 320.).

Claim 4

The method of claim 2, further comprising:

arranging said icons representing same type of resources into columns, wherein adjacent columns group different resources, and a row intersecting adjacent columns indicate relationships between particular resources of the respective column (Figure 3B in Applicants' specification shows that LUNs 304, 306, 308, 322, 324, and 336 are all of the same resource type and arranged in a same column. Other resources (such as Volume Groups 310, 326, and 338) are also arranged in a same column. Rows that intersect a

column indicate a relationship between resources. For example, the row with LUN 306 indicates a relationship with both Array 302 and VG 310. See paragraphs [0029] – [0030].).

Claim 14

A method of controlling the relationships amongst resources of a system, wherein said resources are iconically represented and illustrated on a Graphical User Interface (GUI), comprising:

manipulating a relationship of resources in said iconically illustrated system (Attributes of a resource (example, storage capacity) are changed by right-clicking on an icon and changing the attribute. Upon completing the changes, the system automatically updates the mosaic-like pane and re-sizes the icon: see paragraph [0033]); and

re-sizing areas of, in response to said manipulating, the relative footprints of said icons according to an effect upon the corresponding resources, respectively, caused by the relationship manipulation (Icons having a physical larger size on the display correspond to larger storage capacity. For example, LUN 306 in Figure 3A has a larger storage capacity than LUN 308 because LUN 306 is larger than LUN 308. When a user changes the storage capacity of the LUN (example, LUN 306 or 308), the system resizes the corresponding icon to make the icon larger if the storage capacity increased or smaller if the storage capacity decreased. See paragraphs [0032] – [0033]) .

Claim 15

The method of claim 14, wherein said manipulating step comprises:

interacting with at least one icon, representative of one said resource in said iconically illustrated system to initiate a change of at least one attribute of said represented resource (Attributes of a resource (example, storage capacity) are changed by right-clicking on an icon and changing the attribute. Upon completing the changes, the system automatically updates the mosaic-like pane and re-sizes the icon: see paragraph [0033]).

Claim 18

A method of displaying relationships amongst first, second and third types of resources of a system, the method comprising:

preparing a graphic of at least two separate but overlapping hierarchies such that (Figure 3A shows a mosaic-like pane 300 showing a first hierarchy of storage resources 301 and a second hierarchy of storage resources 303. LUNs 304 and 306 report to (i.e., are hierarchical children of) a first parent array 302. At the same time, LUNs 304, 306, and 308 report to (i.e., are hierarchical children of) a different parent VG 310. Thus, LUNs 304 and 306 overlap between two different hierarchies. See paragraphs [0023] – [0026].)

viewing the graphic in a first direction represents a first one of said separate but overlapping hierarchies in which ones of the first resource type report hierarchically to ones of the second resource type (The mosaic-like pane 300 in Figure 3A can be viewed in a first direction from left to right or a second direction right to left. When viewing the pane in the first direction (i.e., left to right), array 302 is viewed as the parent of LUNs 304 and 306: see paragraph [0030]), and

viewing the graphic in a second direction different from the first direction represents a second one of said separate but overlapping hierarchies in which ones of the first resource type report hierarchically to ones of the third resource type (The mosaic-like pane 300 of Figure 3A can be viewed in the second direction (i.e., right to left). When viewing the pane in the second direction, VG 310 is viewed as the parent of LUNs 304, 306, and 308: see paragraph [0030]); and

displaying the graphic (Figure 3A shows a mosaic-like pane 300).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 and 18-22 are rejected under 35 USC § 102(e) as being anticipated by USPN 7,107,534 (Jong).

Claims 2-17 and 23-25 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,426,761 (Kanevsky) in view of USPN 7,107,534 (Jong).

VII. ARGUMENT

The rejection of claims 1 – 25 is improper, and Applicants respectfully request reversal of these rejections.

The claims do not stand or fall together. Instead, Applicants present separate arguments for various claims. Each of these arguments is separately argued below and presented with separate headings and sub-heading as required by 37 C.F.R. § 41.37(c)(1)(vii).

Overview of Claims and Primary Reference (Jong)

As a precursor to the arguments, Applicants provide an overview of the claims and the primary reference (Jong). This overview will assist in determining the scope and content of the prior art as required in Graham (see *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 setting out an objective analysis for applying 103 rejections).

As discussed in Applicants' specification, traditional hierarchical trees will not work if children nodes (for example, leaves of the tree) share a relationship with separate hierarchies (i.e., the same leaves belong to different trees). "An example of this is provided via Fig. 1B, which is an illustrative depiction of how a simple hierarchical tree format fails to adequately convey the overlap between hierarchies for a system having resources occupying a rank in overlapping but separate hierarchies" (see paragraph [0016]). As shown in Fig. 1B, LUNs 132 and 134 belong to one parent array 130 but also belong to another parent Volume Group 144 and another parent Volume Group 146 (see paragraph [0018]). Attempting to depict these relationships in a traditional hierarchical tree confuses and obfuscates the relationship between the Array 130 and Volume Groups 144 and 146 (see paragraph [0019]).

Embodiments of the invention cure the problems of traditional hierarchical trees when leaves or branches belong to separate trees or separate hierarchies. For example, claim 1 is directed to a method for displaying the relationship between such storage resources that belong to separate hierarchies (i.e., the same resource belongs to separate trees or separate branches). The display uses a mosaic-like graphic to illustrate overlapping but separate hierarchies. Figure 3A shows a mosaic-like pane 300 showing a

first hierarchy of storage resources 301 and a second hierarchy of storage resources 303. LUNs 304 and 306 report to (i.e., are hierarchical children of) a first parent array 302. At the same time, LUNs 304, 306, and 308 report to (i.e., are hierarchical children of) a different parent VG 310. Thus, LUNs 304 and 306 overlap between two different hierarchies.

Jong teaches a graphical user interface (GUI) that shows relationships between storage resources in a storage system. For example, Figure 14 in Jong shows a window 200 displaying a traditional hierarchical tree for storage resources. A parent node (Host Waterloo) has two children (Compaq K 104 and Digital Z3). The child Compaq K 104 has a child (A110 Controller) with two children storage resources (Array 1 and Array 2). **None of the resources are shown to overlap with separate hierarchies.** Instead, all of the resources are shown in a traditional hierarchical tree and belong to the same parent (i.e., Host Waterloo).

Claim Rejections: 35 USC § 102(e)

Claims 1 and 18-22 are rejected under 35 USC § 102(e) as being anticipated by USPN 7,107,534 (Jong). These rejections are traversed.

The rejected claims 1 and 18-22 recite at least one element not taught in Jong. Separate groups are argued below with separate sub-headings.

Sub-Heading 1: Claim 1

As one example, claim 1 recites illustrating at least two overlapping but separate hierarchies in a same mosaic-like graph. In other words, the claim requires that a same mosaic graph show at least two overlapping and separate hierarchies. Jong does not teach this element.

Figure 14 in Jong shows a window 200 displaying a traditional hierarchical tree for storage resources. A parent node (Host Waterloo) has two children (Compaq K 104 and Digital Z3). The child Compaq K 104 has a child (A110 Controller) with two children storage resources (Array 1 and Array 2). **None of the resources are shown to overlap with separate hierarchies.** Instead, all of the resources are shown in a traditional hierarchical tree and belong to the same parent (i.e., Host Waterloo).

Figure 15 in Jong merely shows a list of the logical devices in the storage system (see column 10, lines 9-10). Figure 15 in Jong does not show the hierarchical relationship between such devices; this relationship is shown in Figure 14. **None of the resources are shown to overlap with separate hierarchies.** Instead, Figure 15 provides a list of storage devices so a user can quickly see what storage devices are in the storage system.

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed (see *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985)). Even if the words of claim 1 are broadly yet reasonably construed, Jong does not teach a same mosaic graph that shows at least two overlapping and separate hierarchies.

As another example, claim 1 recites that each of the overlapping but separate hierarchies represent a relationship amongst the resources of the system. In other words, the claim recites a same mosaic graph showing two overlapping but separate hierarchies. Each of the two hierarchies must represent a relationship among the resources. Jong does not teach this element.

Figure 14 in Jong shows a window 200 displaying a traditional hierarchical tree for storage resources. A parent node (Host Waterloo) has two children (Compaq K 104 and Digital Z3). The child Compaq K 104 has a child (A110 Controller) with two children storage resources (Array 1 and Array 2). **The window 200 in Jong only depicts a single hierarchy of parent node (Host Waterloo).** Jong does not show two separate hierarchies. Therefore, Jong does not show two separate hierarchies that represent one or more relationships among the resources.

Figure 15 in Jong merely shows a list of the logical devices in the storage system (see column 10, lines 9-10). **Figure 15 in Jong does not show hierarchies.** Instead, Figure 15 provides a list of storage devices so a user can quickly see what storage devices are in the storage system. Jong does not show two separate hierarchies. Therefore, Jong does not show two separate hierarchies that represent one or more relationships among the resources.

For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference (see *In re Bond*, 910

F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990)). Even if the words of claim 1 are broadly yet reasonably construed, Jong does not show two separate hierarchies. Therefore, Jong does not show two separate hierarchies that represent one or more relationships among the resources.

Sub-Heading 2: Claims 18-22

Claim 18 is selected for discussion.

As one example, claim 18 recites preparing a graph having at least two separate but overlapping hierarchies. In other words, the claim requires that a graph show at least two overlapping and separate hierarchies. Jong does not teach this element.

Figure 14 in Jong shows a window 200 displaying a traditional hierarchical tree for storage resources. A parent node (Host Waterloo) has two children (Compaq K 104 and Digital Z3). The child Compaq K 104 has a child (A110 Controller) with two children storage resources (Array 1 and Array 2). **None of the resources are shown to overlap with separate hierarchies.** Instead, all of the resources are shown in a traditional hierarchical tree and belong to the same parent (i.e., Host Waterloo).

Figure 15 in Jong merely shows a list of the logical devices in the storage system (see column 10, lines 9-10). Figure 15 in Jong does not show the hierarchical relationship between such devices; this relationship is shown in Figure 14. **None of the resources are shown to overlap with separate hierarchies.** Instead, Figure 15 provides a list of storage devices so a user can quickly see what storage devices are in the storage system.

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed (see *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985)). Even if the words of claim 18 are broadly yet reasonably construed, Jong does not teach a graph that shows at least two separate but overlapping hierarchies.

As another example, claim 18 recites viewing the graphic in a first direction represents a first one of said separate but overlapping hierarchies in which ones of the first resource type report hierarchically to ones of the second resource type. Jong does not teach this element.

As shown in Applicants' drawings, the mosaic-like pane 300 in Figure 3A can be viewed in a first direction from left to right or a second direction right to left. When viewing the pane in the first direction (i.e., left to right), array 302 is viewed as the parent of LUNs 304 and 306.

When Figure 14 in Jong is viewed from left to right, Host Waterloo is seen to be the parent of Compaq K 104, which is seen to be the parent of A110 Controller, which is seen to be the parent of Array 1 and Array 2. No hierarchies are "overlapping" with another separate hierarchy as required in claim 18.

Figure 15 in Jong merely shows a list of the logical devices in the storage system (see column 10, lines 9-10). Figure 15 in Jong does not show the hierarchical relationship between such devices; this relationship is shown in Figure 14. **None of the resources are shown to overlap with separate hierarchies.** Instead, Figure 15 provides a list of storage devices so a user can quickly see what storage devices are in the storage system.

Anticipation is established only when a single prior art reference discloses each and every element of a claimed invention united in the same way (see *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984)). Even if the words of claim 18 are broadly yet reasonably construed, Jong does not teach a graph that can be viewed in a first direction with one of separate but overlapping hierarchies being displayed.

As another example, claim 18 recites viewing the graphic in a second direction (different than the first direction) represents a second one of said separate but overlapping hierarchies in which ones of the first resource type report hierarchically to ones of the third resource type. Jong does not teach this element.

As shown in Applicants' drawings, the mosaic-like pane 300 in Figure 3A can be viewed in a second direction from right to left. When viewing the pane in the second direction, VG 310 is viewed as the parent of LUNs 304, 306, and 308

When Figure 14 in Jong is viewed from right to right, Array 1 and Array 2 are seen to be children of A110 Controller, which is seen to be a child of Compaq K 104, which is seen to be a child of Host Waterloo. No hierarchies are "overlapping" with another separate hierarchy as required in claim 18.

Figure 15 in Jong merely shows a list of the logical devices in the storage system (see column 10, lines 9-10). Figure 15 in Jong does not show the hierarchical relationship between such devices; this relationship is shown in Figure 14. **None of the resources are shown to overlap with separate hierarchies.** Instead, Figure 15 provides a list of storage devices so a user can quickly see what storage devices are in the storage system.

Anticipation is established only when a single prior art reference discloses each and every element of a claimed invention united in the same way (see *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984)). Even if the words of claim 18 are broadly yet reasonably construed, Jong does not teach a graph that can be viewed in a second direction with one of separate but overlapping hierarchies being displayed.

Claim Rejections: 35 USC § 103(a)

Claims 2-17 and 23-25 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,426,761 (Kanevsky) in view of USPN 7,107,534 (Jong).These rejections are traversed.

Each of the claims recites one or more elements that are not taught or suggested in Kanevsky in view of Jong. These missing elements show that the differences between the combined teachings in the art and the recitations in the claims are great. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

The rejected claims 2-17 and 23-25 are divided into three separate groups that are separately identified and argued below.

Sub-Heading 1: Claims 4 and 5

In this group, claim 4 is selected for discussion.

Claim 4 recites arranging icons representing a same type of resources into columns. Adjacent columns are grouped with different resources. Further, a row intersecting adjacent columns indicates relationships between particular resources of the respective column. Jong does not teach or suggest these elements.

Figure 3B in Applicants' specification shows that LUNs 304, 306, 308, 322, 324, and 336 are all of the same resource type and arranged in a same column. Other resources (such as Volume Groups 310, 326, and 338) are also arranged in a same column. Rows that intersect a column indicate a relationship between resources. For example, the row with LUN 306 indicates a relationship with both Array 302 and VG 310. Likewise, the row with LUN 308 indicates a relationship with both JBOD 320 and VG 310.

In contrast to claim 4, Jong does not teach rows and columns showing such relationships. Figure 15 in Jong merely shows a list of the logical devices in the storage system (see column 10, lines 9-10). Figure 15 in Jong does not show any relationship whatsoever between rows that intersect a column. For example, the second row has Host Another and Digital 23, but the relationship between these two resources is not shown from the window.

The differences between the claims and the teachings in the art are great since Kanevsky in view of Jong fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, claims 4 and 5 are allowable over Kanevsky in view of Jong.

Sub-Heading 2: Claims 2, 3, 6-14, and 23-25

In this group, claim 14 is selected for discussion.

By way of example, independent claim 14 recites representing resources iconically in a GUI. The claim then recites re-sizing areas of footprints of the icons according to an effect upon the resources caused by manipulating the relationship between the resources. Kanevsky in view of Jong does not teach or suggest this element.

As discussed in Applicants' specification, icons having a physical larger size on the display correspond to larger storage capacity. For example, LUN 306 in Figure 3A has a larger storage capacity than LUN 308 because LUN 306 is larger than LUN 308. When a user changes the storage capacity of the LUN (example, LUN 306 or 308), the system resizes the corresponding icon to make the icon larger if the storage capacity increased or smaller if the storage capacity decreased.

The Examiner admits that "Jong does not specifically mention that an icon can change size by system or user" (see Final OA at p. 5). The Examiner, however, attempts to cure this deficiency with Kanevsky and cites column 4, lines 14-15, 34, 45, and 51. Applicants respectfully traverse.

The cited sections of Kanevsky teach that icons displayed on a display can have different sizes. Further, Kanevsky states that the icon size can be based on "size of information represented by the icon" (see column 4, lines 45-46).

This teaching in Kanevsky is different than the recitations in claim 14. Specifically, claim 14 recites that the footprint of the icon is re-sized in response to manipulating relationship of the resources being displayed. For example, a user changes the size of the footprint of the icon itself being displayed. Although Kanevsky states that icons can have different sizes based on the size of information being represented, Kanevsky never states how these sizes are changed or manipulated. Kanevsky never suggests that a user would manipulate the size of the icon itself to change its size.

The differences between the claims and the teachings in the art are great since Kanevsky in view of Jong fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, claims 2, 3, 6-14, and 23-25are allowable over Kanevsky in view of Jong.

Sub-Heading 3: Claims 15-17

In this group, claim 15 is selected for discussion.

Claim 15 emphasizes that interaction with the icon itself changes the attribute of the resource. Although Kanevsky states that icons can have different sizes based on the size of information being represented, Kanevsky never states how these sizes are changed or manipulated. Kanevsky never suggests that a user would manipulate the size of the icon itself to change its size. This aspect is recited in claim 15.

The differences between the claims and the teachings in the art are great since Kanevsky in view of Jong fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, claims 15-17 are allowable over Kanevsky in view of Jong.

CONCLUSION

In view of the above, Applicants respectfully request the Board of Appeals to reverse the Examiner's rejection of all pending claims.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

Hewlett-Packard Company
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

Respectfully submitted,

/Philip S. Lyren #40,709/

Philip S. Lyren
Reg. No. 40,709
Ph: 832-236-5529

VIII. Claims Appendix

1. (original) A method of using a Graphical User Interface (GUI) to display relationships amongst resources of a system, the method comprising:

illustrating at least two overlapping but separate hierarchies in the same mosaic-like graphic, each hierarchy representing one or more of the relationships amongst the resources.

2. (original) The method of claim 1, wherein said resources are represented by icons and at least one resource occupies a rank in at least two of said overlapping but separate hierarchies, further comprising:

sizing said icons in proportion to said at least one attribute of said represented resource.

3. (original) The method of claim 2, wherein said at least one attribute is storage capacity.

4. (original) The method of claim 2, further comprising:

arranging said icons representing same type of resources into columns, wherein adjacent columns group different resources, and a row intersecting adjacent columns indicate relationships between particular resources of the respective column.

5. (original) The method of claim 4, further comprising organizing further comprising:

labeling said one of hierarchical columns and hierarchical rows with an indication of said at least one common feature.

6. (original) The method of claim 2, further comprising:

interacting with at least one said icon of said mosaic-like graphic, wherein said interaction results in a change in said at least one attribute of said represented resource; and

in response to said interaction, restructuring said first mosaic-like pane by at least re-sizing said icons proportional to a change in said at least one attribute of said represented resources, compared to a footprint of said at least one attribute prior to said interaction.

7. (original) The method of claim 6, wherein said interacting step, comprises:

receiving an indication that one of said icons was chosen from said first mosaic like graphic;

displaying attributes of said represented resource; and

receiving changes to said attributes.

8. (original) The method of claim 7, wherein said displaying attributes comprises:

illustrating said attributes in a pop-up window.

9. (original) The method of claim 7, wherein said receiving an indication, comprises:

receiving a user indication through a peripheral device.

10. (original) The method of claim 2, wherein the mosaic-like graphic is a first mosaic-like graphic and the overlap is a first overlap, the method further comprising illustrating a second mosaic-like pane containing independent icons representative of resources that may be added to said at least two overlapping but separate hierarchies, comprising:

receiving an indication of a new relationship developed between a resource of the type represented in said second mosaic-like pane and the resources represented in said first mosaic-like pane; and

restructuring, in response to receiving said indication, said at least two overlapping but separate hierarchies and corresponding said first mosaic-like pane by at least re-sizing said icons proportional to a change in said at least one attribute of said represented resources, compared to a footprint of said at least one attribute prior to receiving said indication.

11. (original) The method of claim 10, wherein said receiving an indication step, comprises:

processing a drag-and-drop of at least one said independent icon from said second mosaic-like pane to said first mosaic-like pane.

12. (original) The method of claim 11, further comprising:

rejecting said processing of an invalid said drag-and-drop.

13. (original) The method of claim 11, further comprising:

in response to said processing step, displaying a pop-up window for receiving changes to said attributes.

14. (original) A method of controlling the relationships amongst resources of a system, wherein said resources are iconically represented and illustrated on a Graphical User Interface (GUI), comprising:

manipulating a relationship of resources in said iconically illustrated system; and

re-sizing areas of, in response to said manipulating, the relative footprints of said icons according to an effect upon the corresponding resources, respectively, caused by the relationship manipulation.

15. (original) The method of claim 14, wherein said manipulating step comprises:

interacting with at least one icon, representative of one said resource in said iconically illustrated system to initiate a change of at least one attribute of said represented resource.

16. (original) The method of claim 15, wherein said initiating step comprises:

displaying, in response to said interaction step, attributes of said represented resource, wherein said attributes are changeable; and

indicating changes to said at least one attribute through the operation of at least one peripheral device.

17. (original) The method of claim 16, wherein said displaying attributes step comprises:

illustrating said attributes in a pop-up window.

18. (original) A method of displaying relationships amongst first, second and third types of resources of a system, the method comprising:

preparing a graphic of at least two separate but overlapping hierarchies such that viewing the graphic in a first direction represents a first one of said separate but overlapping hierarchies in which ones of the first resource type report hierarchically to ones of the second resource type, and

viewing the graphic in a second direction different from the first direction represents a second one of said separate but overlapping hierarchies in which ones of the first resource type report hierarchically to ones of the third resource type; and

displaying the graphic.

19. (original) The method of claim 18, wherein the graphic is mosaic-like.

20. (original) The method of claim 19, wherein each of the first, second and third resources is represented as an iconic element of the mosaic-like graphic

21. (original) The method of claim 18, wherein

the first one of said separate but overlapping hierarchies represents physical storage resources of a storage system, and

the second one of said separate but overlapping hierarchies represents logical storage resources of the storage system.

22. (original) The method of claim 18, wherein the second direction is opposite to the first direction.

23. (original) The method of claim 18, wherein said first, second and third types of resources are represented by icons, further comprising:

sizing said icons in proportion to at least one attribute of said represented resource.

24. (original) The method of claim 23, wherein said at least one attribute is storage capacity.

25. (original) The method of claim 23, further comprising:

arranging said icons representing same type of resources into columns, wherein adjacent columns group different resources, and a row intersecting adjacent columns indicate relationships between particular resources of the respective column.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.